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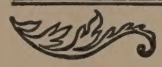

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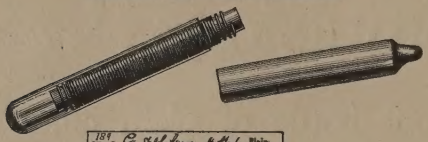

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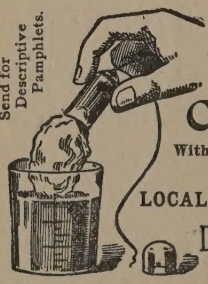

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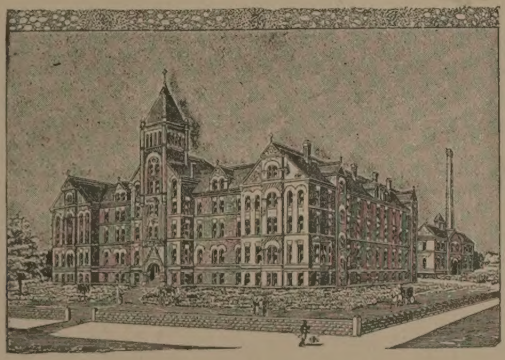

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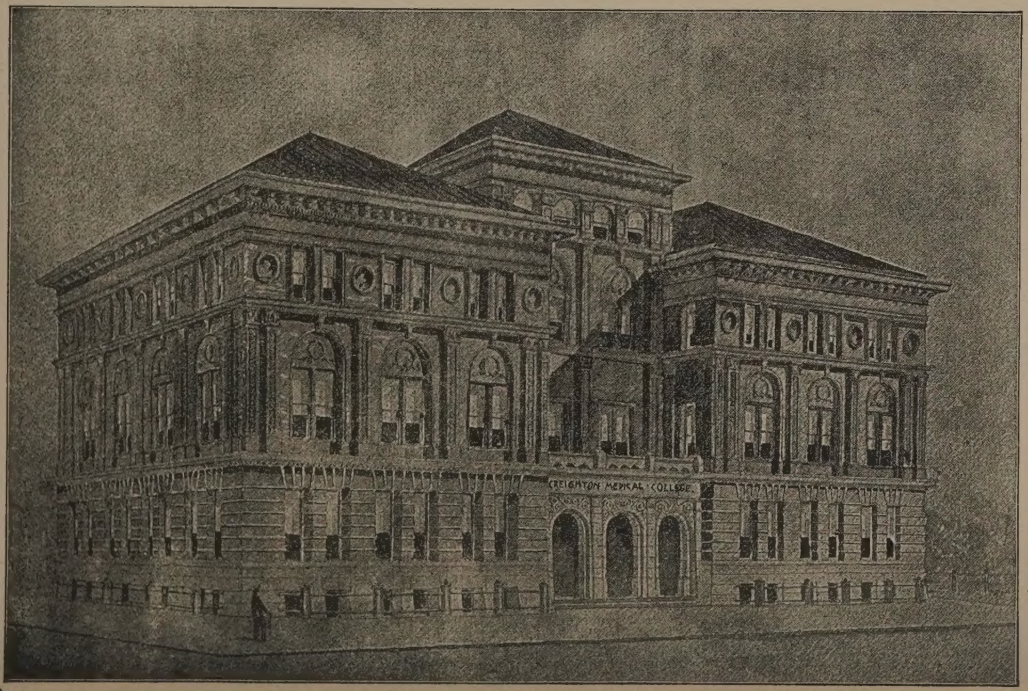

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IOWA MEDICAL JOURNAL.

VOL. III. AUGUST, 1897. No. 8.

SKIAGRAPH IN EVIDENCE.*

By Hon. G. H. Carr, Des Moines, Iowa.

IN JUDICIAL investigation, the truth is the one thing sought after. That it is not always found is due to the fact that courts are compelled to depend upon human testimony. Many rules have been incorporated into the law of evidence, which, to the layman, may appear exceedingly technical; but these rules of evidence have been born of a wisdom obtained by much experience in courts of justice, and result from a desire, on the part of the courts, to arrive at the truth as to disputed questions of fact. One of these rules is that the evidence offered must be the best obtainable. If it appears that the evidence offered is secondary, and it is not made to appear that the primary evidence is not obtainable, it will be rejected. The evidence must be relevant to the issue and must be material. That is to say, it must be confined to the questions of fact which the pleadings of the parties present to the triers of fact for their determination, and must tend, to some extent, to establish or disprove the allegations of the parties found in their pleadings. If an item of evidence offered is found to be competent, that is, the best of the kind obtainable, relevant to the issues and material, it will be received by the courts and given such weight, and such weight only, as, in the opinion of the court, or the jury, as the case may be, it is entitled to receive.

The courts have always been ready to avail themselves of knowledge resulting from scientific investigation whenever such knowledge aids them in arriving at a conclusion in relation to the subject of judicial investigation. Before, however, the courts will receive the results of scientific investigation, it must be made to appear that they are reliable. This may be done by the testimony of scientific men who have made a study of the subject and have become expert in that particular field of scientific investigation; or in case the evidence offered rests upon scientific princi-

*Read before Polk County Medical Society, August meeting, 1897.

ples which have become well known and firmly established, the courts will take judicial cognizance of the reliability of the evidence and admit it without preliminary proof.

The Rœntgen method, being a recent discovery, the skiagraph, or shadow cast by directing the X-ray through the human body, has not as yet been made the subject of judicial investigation by courts of last resort. There are, however, numerous adjudications by courts of the highest authority, in which the principles of law by which the courts must be guided in determining the admissibility of the skiagraph in evidence have become firmly established. The first inquiry would be: Is this the best evidence obtainable? It being manifest that the bony structures of the human body are not visible to the eye, a shadow cast by passing the X-ray through the body which shows the outline of the bony structures, would not be open to the objection that it was secondary evidence. Such evidence, however, not being apparent to the senses without the aid of scientific appliances, the reliability of such appliances in producing an effect which is apparent to the sense of sight, would have to be established by preliminary proof. This preliminary proof must be furnished by those who have special knowledge of the subject. Persons who have made special inquiry into this particular field of scientific development, and have given to the subject special study and investigation, would doubtless be competent witnesses to lay the foundation for the admission of the skiagraph in evidence. It being established that the skiagraph is the shadow of a substance which is the subject of judicial investigation, and that such shadow conveys to the mind, through the medium of the sense of vision, a reasonably distinct and accurate idea of the conformation of such substance, it would seem on principle that the thing itself being invisible, the shadow representation ought to be received in all cases where the appearance of the object is material to the inquiry.

As showing the views which the courts have entertained on somewhat kindred topics, I quote from the opinions in some of the cases in which the admissibility of the photograph came into question. Let me first observe, however, that the photograph, unlike the skiagraph, is always secondary evidence. It is but a copy of a visible original and hence is open to the objection that

it is not the best evidence, except in cases where the original can not be produced in court. The cases I am about to call to your attention are, however, valuable as showing the readiness with which courts avail themselves of knowledge derived from established scientific truths.

In 1874, one Udderzook was on trial in the courts of Pennsylvania for the murder of one Goss, alias Wilson. It became material in the course of the trial to establish the fact that the individual Goss and the individual known as Wilson were the same identical person. A photograph of the man Goss was presented to a witness who had never seen him, but had seen a man known to him as Wilson. In commenting upon the admissibility of this evidence, Chief Justice Agnew, of the supreme court, says: "It is evident that the competency of the evidence in such a case depends upon the reliability of the photograph as a work of art, and this, in the case before us, in which no proof is made by experts of this reliability must depend upon the judicial cognizance we may take of the photograph as an established means of producing a correct likeness. The Daguerreian process was first given to the world in 1839. It was soon followed by photography, of which we have had nearly a generation's experience. It has become a common mode of taking and preserving views as well as the likenesses of persons, and has attained universal assent as to the correctness of its delineations. We know that its principles are derived from science, that the images on the plate, made from the rays of light on the camera, are dependent on the same general laws which produce images of outward forms on the retina through the lenses of the eye. The process has become one in general use so common that we cannot refuse to take judicial cognizance of it as a proper means of producing correct likenesses."

In the case of Locke *vs.* Railway Company, Judge Seevers, speaking for the supreme court of Iowa, says: "What was claimed to be a photograph of the wreck and bridge taken the next morning after the wreck, was shown to a witness and in relation thereto he testified: 'It is a very correct picture of the wreck the next morning. It is as near correct as can be.' Whereupon the plaintiff offered to introduce the same in evidence, to

which the defendant objected because incompetent, which objection was overruled and the same was admitted as evidence. * * * * * * * If it was a correct delineation of the wreck, broken bridge and stream, we conceive it would be competent testimony, for the reason that the jury, if it were possible for them to see it, would have been permitted to have viewed and inspected the same for the purpose of more readily understanding and applying the other evidence."

In the case of Blair *vs.* Pelham, decided by the supreme court of Massachusetts, it was said that a photograph was admissible in evidence when verified by proof that it was a true representation of the subject, and as to whether it was sufficiently verified was a preliminary question of fact to be decided by the judge presiding at the trial.

Some of the courts in the earlier decisions have rejected photographs as evidence upon the theory that "photographers do not always produce exact *fac similes* of the subject delineated." Such cases are opposed to the great weight of authority, and in view of the great advances made in the photographic art of late years, it is believed that no court would, at the present time, hold photographs inadmissible.

A leading author writing upon the subject of evidentiary law, after reviewing the decisions of the court upon this subject, closes the chapter by the use of the following language: "The general rule is without contradiction that where a photograph is shown to be a faithful representation of whatever it purports to reproduce, it is admissible as an appropriate aid to the jury in applying the evidence, and this is equally true whether it relates to persons, things or places."

The magnifying glass is very frequently used, with the sanction of the courts, for the purpose of obtaining a more distinct view of minute objects. This is upon the principle that in their search for the truth, the courts will make use of any means, as aids to the senses, which are known to be, or can be shown to be, reliable. When the question at issue makes it necessary to ascertain the conformation of one or more of the bones of the body, it is manifest that a view of the structure would afford the most satisfactory evidence; but as the bone is not visible beneath its

covering of tissue, a scientific apparatus which would cause the rays of light to penetrate the fleshy tissues and thus enable the person making use of it to see the bone, would, on the same principle that the magnifying glass is used to inspect minute objects, be made use of as an aid to the sense of sight.

The Roentgen method does not enable us to see the bone, but it does enable us to see the shadow of the bone. Now, if such shadow is a correct delineation of the bone, the mind obtains, through the sense of vision, a correct impression of its conformation. Such shadow, therefore, becomes the best evidence of the appearance of the bone which can be conveyed to the mind through the sense of vision, and it reliable, there can be no possible objection to the court's availing itself of such testimony. I am clearly of the opinion that the skiagraph is competent testimony, providing it is shown to the satisfaction of the court that it correctly outlines an object within the body, the conformation or location of which it is material to ascertain.

That the skiagraph would materially aid in reaching a right conclusion in certain cases, I think cannot admit of doubt. A learned court once remarked that "As a general rule, in proportion as the media of evidence is multiplied, the chances of error or mistake are increased." This may be true of evidence which is of so unreliable a character that it ought not to have weight. It certainly is not to be said of evidence which is weighty with the truth. One may hear what appears to be the strains of a band, and through the evidence of the sense of hearing be convinced that a band is playing. If, however, the person changes his position so that he may see the performers manipulating their instruments, he is not only not thrown into error by the multiplied media of evidence, but on the contrary all doubt, if any existed, is at once removed.

Palpation may enable the expert to correctly judge of the shape, location or condition of most of the bones of the body. He may also, in some cases, learn much from external appearance and muscular action. He may give to the jury his opinion based upon such examination. Such opinion may be satisfactory to the jury and it may not. If the jury, in addition to the opinion of experts, could *see* for themselves, they would have no difficulty

in reaching a right conclusion. If the skiagraph presents to the eye a reliable delineation of the bony structures of the human body, it will, without doubt, prove of great value as evidence. Its weight as evidence will be just in proportion to the clearness and precision with which the shadow delineates the substance.

MEDICINE.

UNDER THE CHARGE OF
L. W. LITTIG, A. M., M. D., M. R. C. S.,
Professor Theory and Practice of Medicine, Iowa State University, Iowa City, Iowa.
AND G. A. SMITH, M. D., *Clinton, Iowa.*
ASSISTED BY
E. HORNIBROOK, M. D., *Cherokee, Iowa.*
D. W. CROUSE, M. D., *Waterloo, Iowa.*
F. E. WHITLEY, M. D., *Webster City, Iowa.*
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THE ICE TREATMENT OF PNEUMONIA.*

By G. E. Crawford, M. D., Ph. D., Cedar Rapids, Iowa.

PROBABLY suggested by the intensely hot weather, I was moved to respond to the request of your secretary by writing a brief paper on the treatment of pneumonia and allied lung troubles by the application of cold.

My parents during my childhood and youth were disciples of hydropathy, so called; a theory of medicine, while too narrow, as all "pathies" are, for a system of medicine, yet contained more good common sense than all of the other so called "pathies" combined.

My father, a very intelligent and scholarly man, coming to a new country, in a rural district where physicians were few, and usually of very meager attainments,—"Dr. Trall's Hydropathic Encyclopedia" became the family authority for the management of all ailments of a febrile character.

Sore throats, croup, "bad colds," or attacks of acute bronchitis, as well as fevers of various sorts, were all treated by the prompt application of cold, used in the form of the wet sheet pack, baths, cold compresses and even sometimes ice; and usually

*Read before the Iowa Union Medical Society, at Cedar Rapids, July 13, 1897.

aborted or made to run a short course. With this rearing I would naturally become an easy convert to the therapeutics of cold ; and I will add, that this practice I have used upon myself, as occasion has required, up to the present time.

I remember, as a half grown boy, my mother was carried through a severe attack of typhoid fever, complicated with pneumonia, with the wet sheet, cool baths, and cold compresses, and made a much better recovery than some of her neighbors, who were treated with large doses of calomel, and allowed to lie in their foul exudates, for fear water would give "them their death a cold."

It was not my purpose to pronounce a eulogy on Drs. Trall and Shaw. I know very little about them, and they have doubtless long since gone to their reward ; but I do know, that they and their followers successfully treated typhoid fever, as well as other febrile affections, by the application of cold, while Brandt and his coadjutors were yet in kilts.

But I must not leave the impression that these hydropaths were the first to employ cold therapeutically. They simply used these common-sense principles, during that most extravagant reign of the so called antiphlogistic therapeutics ; when fever patients were bled, and purged, and salivated, and often allowed to die of hunger and thirst.

Currie, of England, used systematically cold affusions in the last century ; and there is evidence that the Arabic physicians, as far back as the crusades employed ice in the treatment of fevers ; and that Galen and Hippocrates even were not ignorant of the therapeutic value of cold. The only wonder is that the boasted intelligence of the nineteenth century could have forgotten it. But thus it has ever been. "Dame fashion" with ubiquitous and despotic power ruling prince and peasant alike, has even invaded the sacred precincts of the temple of Æsculapius from time to time, and has often been as arbitrary in the dictation of our therapeutics, as in the cut of our coats and the turn of our hats.

During the period of my association with the medical men of this region the past twenty-five years, the universal local treatment of pneumonia, and all inflammatory diseases of the respiratory organs, has been by the application of hot poultices. I think it

is the general verdict, when they are thoroughly applied, under the personal supervision of the physician, or in the hands of a trained nurse, that they do good; but when simply prescribed, as is so often done, and left to the judgment, or rather lack of judgment, of the friends to carry out, the physician is likely to find a little mass of cold mush rolled up on the patient's abdomen when he returns.

As a question of physics, heat and cold are opposite terms of comparison.

But the paradox has long been accepted as a demonstrated fact in therapeutics, that the action of heat and cold upon the capillaries, and on inflammation, is essentially the same. But while that is true of this local action on the capillaries, and in hemorrhages, and localized inflammations may be interchanged with perhaps equally good results, there is an action in which they radically differ, and which is of great importance in the treatment of inflammations accompanied with general rise of temperature, or pyrexia. The application of cold not only contracts the capillaries to which it is applied, and thereby diminishes the local inflammatory process, but it also abstracts heat from the general circulation and thereby diminishes the *vis a tergo* which is constantly adding fuel to the flame.

Upon these principles rests the superiority of the treatment of pneumonia and all inflammatory diseases of the respiratory organs, by the application of cold, which has been so rapidly gaining favor in the last two or three years.

While, as already intimated, I have always been favorably disposed to the use of cold in this class of diseases, my experience in its employment has been quite limited; due largely to the two causes; first, following the prevailing fashion of the day; and second, the very strong prejudice on the part of the laity, brought about by generations of poulticing, against the employment of cold. But during the last few years I have used cool baths and sponge baths and compresses in some desperate cases of broncho-pneumonia in children, when other measures were proving futile, with the most gratifying results. And the more I see of it, the more I am convinced that the application of cold in lung diseases, even in bronchitis of small children, may be used with the same

safety as in typhoid ; and that the supposed danger of "taking cold" and aggravating the disease is unfounded.

I have just recently spent three weeks among the clinics of Philadelphia ; and, by the way, I think there is no place in this country where so vast an amount of clinical material is so systematically utilized for teaching purposes as in Philadelphia. And there I soon found that the cold treatment of pneumonia was rapidly coming to be recognized as giving much better results than any other method yet employed.

Most conspicuous among the ardent advocates of this treatment in this country are Prof. Thos. J. Mays, and Solomon Solis Cohen, of the Philadelphia Polyclinic, who are recognized authorities on diseases of the chest, and Dr. Simon Baruch, of New York. It was my privilege to hear Dr. Mays deliver a clinical lecture on the treatment of pneumonia. And it is the main practical point of this paper to give you an epitome of his method.

He immediately surrounds the affected area,—front, side and back, as far as possible, the whole chest if necessary, with rubber ice-bags wrapped in towels, using as many as necessary, from two or three to even nine ; one is also placed on the patient's head.

He uses the large flat German ice-bag about the size and much the shape of a large dinner plate.

It is gathered at one side like a big tobacco pouch, around a narrow rim, on which is screwed a water-tight cap.

These ice-bags are allowed to remain until the temperature goes down to the normal, and then gradually removed.

If the temperature comes up again, they are reapplied as before. This, of course, like any other local measure, does not in any way interfere with any general treatment indicated.

Dr. Mays' principal medication is large doses of strychnia, 1-30 to 1-20 grain, every three or four hours, unless its physiological action becomes apparent. Morphine hypodermatically to relieve pain, and induce sleep, when necessary. Liquid nourishment, as freshly expressed beef juice, or a tablespoonful of beef-powder in coffee or chocolate every three hours, milk and whisky if needed. Capsicum he also regards as an excellent stimulant and of especial value and importance in alcoholics ; and in asthenic cases of this character would give in half-dram to dram doses of

the tincture. In asthenic cases in children and old people with tendency to cold extremities, hot water bottles should be applied to the feet and limbs, while the cold is applied to the lungs and head. When pleurisy is connected with pneumonia, it is usually associated with rheumatism, and needs the free use of the salicylates. When complicated with malaria, the prompt use of quinine is indicated. In sthenic cases, which are very cyanotic, in addition to the thorough application of the ice-bags, he recommends bleeding.

Dr. Mays' statistics I cannot give; but they amount to hundreds of cases; and they show a marked diminution in the death rate, as well as in the duration of the disease; and that the ice treatment of pneumonia when used promptly and thoroughly, practically aborts many cases, or the extension is limited, the course shortened, and the patient relieved of much suffering.

The diplococcus pneumoniæ is generally accepted as the specific cause of lobor pneumonia; but this does not alter the fact that pneumonia is essentially an inflammation, or militate against the use of cold in combating and limiting this inflammation. The serum treatment of pneumonia, in common with that of many other diseases, is a field for investigation of much interest, and some promise; but so far the results in pneumonia have been of little practical utility — but that forms no part of the subject of this paper.

Pension examiners appointed: Drs. L. J. Leach, of West Branch, Cedar county; F. S. Thomas and J. S. Cleaver, of Council Bluffs, and F. Robins, of Neola, for Pottawattamie county; W. M. Glenny, of Albia, Monroe county; M. C. Carpenter, V. Bean and J. W. Oliver, of Oskaloosa, Mahaska county; C. W. Allen, of Story City, and H. D. Chamberlain, of Nevada, for Story county; J. W. Cannon, Atlantic, Cass county; M. Meredith, Vinton, Benton county; A. B. Bowen, Maquoketa, Jackson county; C. H. Robbins, Chas. McAllister and E. E. Munger, of Spencer, for Clay county; J. B. Brown, W. P. Penfield and J. L. Bowers, of Grundy Center, for Grundy county.

SURGERY.

UNDER THE CHARGE OF
J. E. SUMMERS, M. D., *Omaha, Neb.*
Professor Surgery Omaha Medical College.

GENERAL SUPPURATIVE PERITONITIS TREATED BY A NEW METHOD.

Apropos of our remarks in the last issue of this journal upon the treatment of general septic peritonitis based upon a recent paper by Dr. A. J. McCosh, the following "New Method" of treatment by Dr. J. M. T. Finney, Associate Professor of Surgery, the Johns Hopkins University, is of great interest (Johns Hopkins Hospital *Bulletin*, July, '97). Dr. Finney treated five cases successfully and because of the great importance of any advance in the handling of so dangerous and formerly uniformly fatal malady, the writer feels that too much space cannot be given in disseminating its up-to-date treatment.

Dr. Finney says: "Recovery following laparotomy for purulent peritonitis is unfortunately of sufficient rarity to excite interest whenever it occurs. My object in making this report to the society is two-fold: first, to record five successful cases of laparotomy for general suppurative peritonitis, all treated by the same method; and second, to describe briefly the method itself. The principle involved is not a new one; only in the manner of carrying it out is there any originality claimed.

"Since the appearance in 1877 of the classical work of Wagner, and later that of Grawitz and others, it has been known that the healthy peritoneum is capable of disposing of a considerable amount of infectious material. J. G. Clark, in a recent article, reviews the literature of the subject and gives the conclusions reached by the experimenters in this direction. All agree that the peritoneum is able under favorable conditions to take up a relatively large amount of infectious material and dispose of it effectually. These observers were dealing with a more or less healthy peritoneum. On opening the abdomen of a patient suffering from general suppurative peritonitis, however, we have very different conditions with which to deal. The observations of

Pawlowsky would indicate that the lymph channels leading from the peritoneal cavity are choked with infectious bacteria and inflammatory products in purulent peritonitis, and that thus the efficiency of the peritoneum would be greatly impaired. Our observations clinically seemed hardly to bear this out.

"The question that suggested itself to our mind was this, whether or not the peritoneum, even under these most unfavorable conditions, still retained its absorptive power. It seemed to us, from our experience in operating upon such cases by the methods heretofore employed, that they were inadequate, and did not remove a sufficient quantity of the exudate, but left the peritoneum little better off than before. With this idea in mind we devised a plan of treatment which, so far as we know, has not been employed elsewhere.

"The steps of the operation are as follows: Make a sufficiently long incision to admit of easy access to all parts of the peritoneal cavity. Quickly withdraw the coils of small intestine from the peritoneal cavity, beginning with the worst coils first. Remove all, or as much as is necessary, of the small intestine and place it outside the abdomen, covered with warm gauze or towels, thus practically disemboweling the patient for the time being. Then thoroughly and systematically wipe out the peritoneal cavity with large pledgets of gauze wrung out of hot salt solution, paying particular attention to the pelvic portion. In some cases it may be well in addition to flush out the cavity with warm salt solution, but this is rarely necessary.

"Next the small intestine should be systematically examined loop by loop while still outside the abdomen, and rendered macroscopically clean by wiping with gauze compresses wrung out of hot solution. It is necessary to wipe with considerable force at times, in order to remove adherent flakes of partly organized lymph. It should be done thoroughly and conscientiously, however, as upon this depends, we believe, in great measure the success of the operation. It facilitates the cleansing process, as well as lessens the shock of the operation, if the wiping of the intestinal coils is carried on under a constant irrigation of warm salt solution.

"After being cleansed macroscopically of all foreign material, pus, feces, lymph, etc., the intestine should be replaced in the

abdomen — the worst or sutured coil being the last, or most superficial, in order that it may be the better drained by being packed about with gauze, if necessary.

"The abdominal wound is then tightly closed, leaving just room enough between two sutures for the gauze drain. If there are any evidences of distension or pain the abdomen should have the Paquelin cautery thoroughly applied, and the bowels moved early by calomel in broken doses, followed by salts and a turpentine enema.

"It is not claimed for this method that it will cure every case of general suppurative peritonitis. We believe, however, that a larger percentage of cases will recover after this method than any other with which we are familiar.

"To insure success with any method, it is essential that the operation should be performed within a few hours after the perforation has taken place. This is well brought out in the very interesting series of experiments on dogs made for me by Messrs. Elting and Calvert of the Johns Hopkins Medical School, a report of which is subjoined."

As anæsthetization of the deep urethra by cocaine, the common method, is sometimes fraught with danger, the following method ought to be of advantage, especially in subjects peculiarly susceptible to constitutional effects of cocaine after topical application :

According to Dr. P. Scharff (*Centralblatt fur die Krankheiten der Harn and Sexual-Organe, Gazette hebdomadaire de medicine et de chirurgie*), the best way of anæsthetizing the deep urethra is by a rectal injection of an analgetic solution such as the following :

℞ Morph. hydrochlorid., gr. ivss.
Atropine sulph., gr. 0.15.
Dist. aq., gr. 1,500.

M. From two to five cubic centimetres of this solution, says the author, injected into the rectum, are enough to induce complete insensibility of the deep urethra, so that sounds may be passed and other instruments used without pain.

A local anæsthetic for extraction of teeth—

℞ Menthol, gr. 160. Tinct. myrrh, gtt. 80. Alcohol, ℥ 2.
M. Sig. Thoroughly dry the gums and apply freely for a few minutes. Use more freely for a permanent than a deciduous tooth.—*Pediatrics.*

USE OF OPIATES AFTER ABDOMINAL OPERATIONS.

The following remarks by Dr. J. C. Irish, of Lowell, Mass., (*New England Medical Monthly*), are illustrative of the fact that it is impossible to practice medicine and surgery by any fixed rules, the individuality of each subject playing a most important role :

The after care of patients on whom an abdominal operation has been done has so great an influence on the final result that every detail of such care is well worth our attention.

The most important question that arises is in regard to the use of opiates within the first twenty-four hours after a celiotomy. At any later period they are not indicated except under exceptional circumstances.

The various complicating disturbances that may arise during the convalescence of the patient, several days after operation, such as diarrhœa, bronchial irritation, or neuralgia, may be relieved by opiates, precisely as would be done if no operation had preceded these affections. But for several years past it has been a universal law not to give an opiate in the first days after an abdominal section. At this time, morphine does harm, principally in two ways : First,—it may prolong indefinitely the nausea or vomiting that follows the anæsthetic ; secondly,—it interferes with the conversion of the intestines into a drainage tube when distension or vomiting due to septic infection or other causes, is to be combated.

Personally, for a long time I had followed this rule without making any exceptions, but an unfortunate case that came to me in October, 1895, has since led me to modify my after treatment with regard to the use of morphine in many instances. This patient (age 49,—fibro-myoma, weight about six pounds, no hemorrhage, general health good, but suffering recently from pressure of tumor in the pelvis) entered the hospital October 28, 1895. Before coming from her home in a country village, she had been subjected to much emotional disturbance. After her entrance she was very nervous and expressed much fear and apprehension as to the result.

A supra-vaginal hysterectomy, Baer's operation, was done October 30th. The operation was not difficult, occupied about forty minutes, and was not attended by any appreciable shock, but soon after the patient was put in bed, she became very restless, talked incessantly, and was in constant motion. This condition continued through the night; in the morning there was increased restlessness, with much fatigue and prostration. Opiates were then given freely, but without the least effect. The patient died of exhaustion in the afternoon, twenty-eight hours after the operation. An autopsy showed nothing at fault within the abdomen, nor did it throw any light upon the cause of death. There was no vomiting and no suppression of urine. I believe that in this case and similar ones, a few of which have been recorded, the nervous system, in some unexplainable way, was entirely responsible for the death of the patient. I have since very much regretted that I did not administer morphine soon after the operation in sufficient quantity to control the nervous disturbance. Since this time, whenever a patient, after an abdominal operation, has been extremely restless and her nervous system quite intolerant of the pain, I have given morphine enough to insure quiet and rest. Usually one or two subcutaneous injections of ⅛ gr. have been sufficient.

In these cases we have to reckon with the most depressing of all emotions — fear. The patient submits to the operation often with much apprehension, and when the after pain becomes severe, with the added depression of shock and nausea, she feels that her worst apprehensions are soon to be realized. It is then the nervous system becomes unmanageable, and the only relief will be from exhaustion or morphine. After the ordinary cases of abdominal section I would not give morphine, but after the exceptional ones, which I have tried to indicate above, I believe that an opiate should be used promptly and freely, and that all the after dangers of its use are much less than those that it averts.

SURGICAL TREATMENT OF GASTRIC ULCER.

By V. B. Knott, M. D., Sioux City, Iowa.

SURGICAL interference for the relief of ulcer of the stomach and its complications, although of comparatively recent date, has by the brilliancy of its results become a well established procedure and promises much for the future.

In considering its applicability I shall attempt to be as brief as possible, dwelling only upon those conditions in which it has been proven of unquestionable value. Although the radical cure for gastric ulcer has been advocated, and attempted by excision of the ulcer itself, the result has not as yet justified this measure as the routine treatment for this condition, nor is it warranted by statics tics, as according to Welch about 85 per cent of all ulcers of the stomach heal spontaneously.

Therefore, I shall in this paper consider the value of surgical interference in those cases of gastric ulcer complicated by one or more of the following conditions: perforation, hemorrhage, cicatricial contraction and adhesion to neighboring viscera or the abdominal wall.

Perforation of a gastric ulcer is always a serious accident, and in the majority of cases the only hope for the recovery of the patient is offered by surgery. If the perforation occurs rapidly and into the general peritoneal cavity, no time having been afforded for the formation of limiting adhesions, unless relieved by surgical intervention, the patient rapidly succumbs to acute septic peritonitis.

In these cases the surgeon should never hesitate, as experience has demonstrated that the successful cases are those in which the operation was performed within a few hours following the perforation. Delay can mean nothing but a rapidly fatal infection. An incision should be made in the median line, between the umbilicus and the sternum, and if the stomach is not then accessible, another incision at right angles to the first will render it so. The first step is to locate the position of the perforation and effect its closure before attempting to remove the extravasated gastric contents.

In by far the greater number of cases, closure may be best effected by turning in the peritoneal edges and retaining them in

*Read before Iowa State Medical Society, at Marshalltown, May 19, 1897.

position with Lembert sutures. In some cases, owing to the diseased condition of the stomach wall, a large portion of it may require inversion. Again, a portion may be resected and the opening closed. It is extremely fortunate that perforation of ulcers of the anterior wall of the stomach is much more common than that of those situated on the posterior wall, as in the latter case the perforation is accessible only with the greatest difficulty, if at all. If it is impossible to close a perforation of the posterior stomach wall, further extravasation must be prevented by a protective packing of gauze and the best possible drainage established with the same material.

As soon as the perforation has been closed, the peritoneal cavity must be carefully cleansed of all extravasated matter, first by dry gauze sponging, and then by irrigation with large quantities of normal saline solution. Here let me say that irrigation, as frequently practiced, employing three or four quarts of fluid, is worse than useless, as with such a small quantity the extravasated particles are only disseminated throughout the peritoneal cavity and not washed out. In all cases gallons of hot normal salt solution should be used.

Following the irrigation the peritoneal cavity should again be sponged dry and ample gauze drainage provided. If evidences of general peritonitis are already present, it is well to supplement the ordinary drainage with gauze wicks, placed at the most dependent portions of the cavity and carried out through incisions in the loin.

M. H. Richardson has collected forty-four cases of operation for this condition with ten recoveries. When we consider that all of these cases would have died without operation, these results are gratifying. The same observer states that the precentage of recoveries during the last two years was much larger than in those cases operated before that time, indicating that the results are improving with experience.

Sometimes perforation of a gastric ulcer occurs so slowly that time is allowed for the formation of limited adhesions and we have a localized abscess resulting. This abscess may be superficial, deep or sub-diaphragmatic. Weir urges that left-sided pyoneumothorax with a previous history of gastric symptoms should be suspected as due to a perforated ulcer of the stomach. These abscesses

should be freely opened and drained, following the technique employed in pelvic or abdominal abscesses due to other causes, and the perforation closed in the usual manner. Cases have been reported in which perforation was followed by neither general peritonitis nor localized abscess, and a complete spontaneous recovery was made, but such a fortunate termination is extremely rare.

Again, adhesion has occurred between the stomach wall and a neighboring viscus or the abdominal wall before perforation has occurred, the ulcer being thus provided with a new floor and infection prevented. The resulting adhesion, however, may occasion so much functional disturbances and pain as to necessitate an operation for its relief.

The abdomen should be opened, the adhesion found and separated and the opening in the stomach closed as indicated above. The following case illustrates this condition and is interesting from the fact that the adhesion was separated without re-opening the ulcer.

E. J., a female, age 32, consulted me regarding severe gastralgia and digestive disturbance of about one year's duration. She complained of very acute abdominal pain coming on soon after eating, which was frequently attended with vomiting. Vomiting, coughing, sneezing, etc., etc., were attended by the most excruciating pain. She had been constantly under treatment for one year, her ailment being diagnosed as dyspepsia and was almost discouraged concerning her condition. Owing to the difficulty with which food was retained on the stomach she was extremely emaciated.

Temperature, 100°; pulse, 85; an examination of the abdomen revealed upon palpation a tender indurated spot about one-half an inch above and the same distance to the left of the umbilicus. This, together with the symptoms above enumerated, led to the diagnosis of an adhesion between the stomach and the abdominal wall with possibly the formation of an abscess. An operation was advised, to which the patient readily consented. She was removed to the hospital and prepared for operation. In addition to the usual preparations for the celiotomy the stomach was thoroughly washed out. The abdomen was opened in the median

line and the adhesion existing between the anterior surface of the stomach and the abdominal wall was readily found.

This point was walled off from the surrounding tissues with gauze sponges and the adhesion separated, keeping close to the abdominal wall. No pus was present and the stomach wall at this point found to be intact, the ulcer having apparently healed. The ulcerated area however, was folded in and retained by close suturing.

As no abscess existed and the stomach had not been opened, the abdominal incision was closed without drainage. The troublesome symptoms immediately disappeared and to the present time, fifteen months after operation, have not recurred. The patient rapidly regained her lost weight and has since been in perfect health.

The interesting features of this case are:

First. That the ulcer should have occasioned such extreme functional disturbance and established so firm an adhesion without being attended with hemorrhage and some of the other classical symptoms.

Second. That after so active an ulcerative process the lesion should undergo such complete spontaneous healing that the operation revealed practically no trace of it except adhesion and a slight induration of the stomach wall.

Third. That the condition was easy of diagnosis, owing to the induration, which could be plainly felt, and the typical disturbance of function. (Most authorities state that the existence of adhesions between the stomach and contiguous structures can only be surmised without an exploratory incision.)

The above case illustrates the treatment of gastric adhesions due to ulceration. If during the course of a gastric ulceration alarming hemorrhage should occur, and death seems imminent from this cause, the abdomen should be opened, the ulcerated area excised, and closure effected by suturing. If for any reason this cannot be accomplished, the stomach must be opened and the bleeding vessel ligated.

Cicatricial contraction accompanying the healing of a gastric ulcer does not usually occasion enough trouble to demand operative relief, unless the ulcer is situated at the pylorus. Contraction and cicatrization occurring at this point may, by occluding

the pyloric orifice, occasion the troublesome train of symptoms consequent upon the dilatation of the stomach which ensues.

Should this occur surgical intervention is imperative. Several procedures have been advocated for the relief of this condition, but I think we may adopt pyloroplasty as performed by Heinecke as the operation of election, and in fact I cannot conceive of a pyloric stenosis due to the above cause in which it would not be applicable.

Preceding this as well as all other gastric operations the stomach should be thoroughly washed out, in addition to the usual preparation for a celiotomy. The pylorus having been exposed should, if possible, be drawn out through the wound before incising, thus guarding against extravasation of the stomach contents. If this cannot be done, it must be surrounded with gauze sponges.

Beginning well above the cicatrix, an incision is made in the large axis of the pylorus and extended down through the contracted area into healthy tissue below — into the duodenum, if necessary. This incision is closed by introducing sutures in the long axis of the pylorus, thus closing it transversely, shortening the pylorus and enlarging its caliber. Gauze drainage should be provided and the abdomen closed.

In all operations upon the stomach strict adherence to the following points is essential:

If the case be not one of emergency demanding immediate interference, the feeding of the patient should be so regulated that at the time of operation the stomach will be empty, and by copious irrigation the intestine rendered as free as possible from fecal matter.

Just before operating the stomach should be thoroughly washed out. After the stomach is exposed, if perforation exists and extravasation has occurred, before attempting to remove the extravasated material the opening in the stomach must be found and closed. The escaped stomach contents may be best removed from the peritoneal cavity by dry gauze sponging, followed by copious irrigation with normal salt solution, and the cavity again sponged dry.

If extravasation has not occurred, such an accident must be prevented by immediately surrounding the operative field with sponges, walling off the general cavity of the peritoneum.

In those cases where the perforation occurs upon the posterior wall of the stomach and is inaccessible for suturing, further extravasation must be prevented by carefully placing gauze packing. The writer has encountered such a condition twice in gun-shot wounds of the abdomen. In all cases where the extravasation has occurred, ample gauze drainage must be provided, and if evidence of general peritonitis is present, counter openings for drainage in the loin are indicated.

Drainage must be maintained according to the requirements of individual cases. There can be no fixed rule regulating its withdrawal.

Great care must be exercised during the evacuation of a localized abscess following perforation that its limiting walls be not broken and a general infection invited. It is recommended that these cavities be cleansed by dry sponging, as the force of an irrigation stream is dangerous.

In separating adhesions between the stomach and neighboring parts by careful dissection strive to avoid opening into the stomach cavity.

If after separation the adherent area of the gastric wall appears doubtfully strong, turn it in and suture. For stomach wounds in general the best suture is an interrupted Lembert of fine silk. Time is in these operations an important consideration and they should be rapidly performed, every detail being carefully arranged before making the incision.

The after treatment of all operations upon the stomach is of great importance. Nothing should be allowed by the mouth until the third or fourth day, all nourishment being administered by rectum. Mouth feeding, when begun, should be done with great care for some time, soups and broths being first given.

NEUROLOGY AND MEDICAL JURISPRUDENCE.

UNDER THE CHARGE OF
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First Assistant Physician Hospital for the Insane, Mt. Pleasant, Iowa.

A CASE OF HYPOSPADIAS.

Within the past six months an interesting case of hypospadias came under the writer's observation. The case, while being typical of the deformity, or rather arrest of development, presented unusual features in its history, which was chiefly remarkable in the fact that the young man had attained the age of 23 years, without his true sex being known or even suspected. These cases are always interesting from an embryological standpoint, but this one gains importance from an anthropological and medico-legal point of view. It incidentally teaches the important lesson, which we all have learned again and again and which we so easily forget, namely: that in the examination of our patients we should take nothing for granted, but on the contrary should determine and ascertain for ourselves everything which can come to our knowledge by means of our five senses. Again that appearances are deceptive and histories fallacious.

The case came under our care on account of mental disorder, and the history furnished is briefly as follows: "Age, 23; single; native of Kentucky; first attack (of mental disorder) began six years ago when she began to assume a masculine character and action. She became lewd in language and unmanageable. Disease is increasing and variable. She is very sensational. Disposed to injure others. She used a knife on her sister and is very destructive. Mother and mother's brother have been insane. She was a very bright girl until 13-14 years old. She never menstruated and it is claimed she is not fully developed sexually."

The patient was very anæmic; of a sallow and muddy complexion, and was suffering from intermittent fever, the plasmodiæ malariæ being present in the blood. Mental disorder was of a melancholic type, with morbid feelings and impulses, and tendency to be alone.

The patient was of medium stature, fairly well nourished and brunette type. Face was smooth, with no tendency to hirsute growth ; the features heavy, but not markedly masculine, neither was the voice, though deep ; carriage and general appearance were clumsy, heavy and awkward. Intelligence was hardly up to the average, and education was common. It must be mentioned however in this connection that the patient had a native talent for drawing and delighted in its exercise. While cleanly and orderly in habit and dress, patient lacked the taste and neatness in dress characteristic of the female. The mother stated that "she was not regular," and was fully convinced that her mental disorder was due to this. She insisted that something be done to bring on her menstrual flow.

A physical examination was fraught with surprises. The external genitals on first sight certainly resembled those of the female, but closer examination revealed, in place of the clitoris, a well-formed penis some 1½ inches long and of respectable circumference composed of the corpora cavernosa, prepuce, corpus spongiosum and glans, but devoid of urethral canal. In the place of the urethra was a shallow groove extending along the entire length of the inferior part of the corpus spongiosum, this being the remains of the genital furrow, which had failed to unite.

The urethra was really at the base of the corpus spongiosum, and on first sight looked like the introitus vaginæ. After a flask-like dilatation (the remains of the urogenital sinus) the urethra diminished in caliber, but easily led a No. 12 sound into the bladder. Exploration of pelvis per vesicam et per rectum revealed entire absence of uterus and ovaries, or of anything which might be the remains of these organs. Small rudimentary vasa deferentia, the undeveloped remains of the Wolffian ducts were made out and an equally rudimentary prostate. Finally, a well-marked testicle was found on each side in the inguinal canal, but freely movable and capable of being brought down into what appeared to be the labium majus, but really was the remains of the genital fold, which had failed to unite to form the scrotum. The testicles were of good size, with rudimentary epididymis, and quite insensitive, and probably inactive functionally. The pelvis was of the male type, as was the entire skeleton. The breasts

were flat and undeveloped, and all the curves and outlines plainly masculine.

These anatomical findings at once removed the case from the female sex and even from the category of true hermaphroditism. The patient was unmistakably a man; a poorly and defectively developed man, but a man nevertheless.

The patient having regained good bodily health and being also much improved mentally, passed out of sight, after having been advised to assume the dress, habits and mode of life suited to his sex and to take up the work to which he inclined.

Here was an unfortunate being in whom during the fourth month of fœtal life, formative development of the genitals was arrested and remained so wholly or in part. This defect caused the sex to be mistaken for so many years, notwithstanding the fact, that the development of the central nervous system during the later years produced a well-marked masculine mentality, as witnessed by the predilection for masculine pursuits, a masculine manner and bearing.

It is to be regretted that the earlier psychic development was not under the observation of a more intelligent and trained observer than the parents. It would be very interesting to know whether the mentality of childhood was really of a feminine type, as would appear from the history of the case furnished by the parents.

Owing to his taciturnity on the subject it was impossible to determine what status, if any, the procreative sense occupied in the patient. It probably had some standing, since the emotion of shame was too intensely excited by reference to the trouble to be accounted for by chagrin over the deformity.

THE CARE OF THE INSANE IN COUNTY ASYLUMS.

By Sara A. Kime, M. D., Des Moines, Iowa.
Formerly Assistant Physician to the Hospital for the Insane, Independence, Iowa.

An editorial recently appeared in the Des Moines *Leader* on the Polk county insane asylum. The article speaks in glowing terms of the financial benefits which will accrue to the county by caring for its insane in the new building recently erected at the poor farm. It extols the system and recommends its adoption by other counties throughout the state, though the building is barely finished and is untenanted.

The inconsistency of this premature advice reminds one of what was said concerning the committee appointed by the last legislature to investigate the state institutions. It was said, in substance, that these men, some of whom have never made a tour of an insane asylum in their lives, would examine the books, investigate the treatment of the patients, and "suggest methods of improvements to the management"—to men who have devoted nearly a quarter of a century to this work!

This and kindred absurdities simply illustrates the imperfect ideas prevalent in the popular mind of what constitutes efficient and humane care for the insane. It consists of something more than furnishing them with a building in which can be provided food, clothing and a bed.

The only motive which permits the erection of county insane asylums is the money-saving motive. It does not seem that argument is needed to convince even the most ordinary intelligence that the care of insane patients at a county poor farm must of necessity be greatly inferior to that which they now receive.

And have they been receiving too good care? When we apply the question to ourselves or to members of our own household there can be but one answer. This, then, should settle the question as to whether the best obtainable is any too good. The county asylum will doubtless be placed under the management of the poor-farm overseer. His wisdom will direct what has to do with the physical necessities of the patients. He will endeavor to secure for them a general care which will at least be as good as that bestowed upon the poor. It will be no better. It

is obvious that the insane patients require a very different management from the other inmates of the farm. Their care is a special one, the necessities of which he cannot conceive nor has he the ability to meet.

The medical attendance will no doubt be furnished by the county doctor, whoever he may chance to be, who is generally inexperienced in the care of the insane. It is no exaggeration to say that the best medical practitioner in the state, I care not from what school nor from how many he may have diplomas, is unfit to direct the management of the insane if he is inexperienced in that line.

But how does the county secure the services of a physician? It is done in almost all cases by a system of bidding which awards the contract to the one who places the lowest estimate upon the value of his services. As a medical practitioner he may be competent or he may not be. He contracts to do the work very much below the usual rates for such services, and furnishes his own medicines and appliances. It is unreasonable to suppose that he will give his first and best care to these patients when his private patrons pay him regular fees. When he is busy with private cases, or is out of town on a trip, the poor patients are often placed in the care of a medical student; the private cases, however, are attended by a brother practitioner.

Just at the present time this principle is illustrated in the care of the city poor of Des Moines. City Physician Wells is down east on his summer vacation, while the city's poor are being cared for by a medical student of Drake University. Every now and then we read of some unfortunate poor patient dying as the result of improper medical attention, or for the lack of any. This condition will of course continue as long as the system of bidding is continued. Out of humanity to the poor the system should be abolished. Cheap pay rarely furnishes anything more than cheap services. When we consider that these insane patients, who have been enjoying the best of care in our state institutions under the charge of such experts as Doctors Gilman, Hill and Hoyt, with the most competent assistants, are to be placed under the espionage of an inexperienced poor-farm overseer and county doctor, is

it not time to raise a protest against the further establishment of county insane asylums?

In removing the harmless incurables from the state institutions many patients will be found who are capable, under their existing surroundings, of a good degree of self-control. They now live on the best wards of the asylums, where their presence is a positive benefit to the more recent and acute cases. They are quiet, orderly, and industrious and daily manifest their enjoyment of life in a manner that tends to allay suspicion and dispel discontent from the disturbed minds of their associates. Many of these patients when removed from their present supporting influences lose their self-control and become a menace to their associates, or else lapse into a deplorable dementia. To force such a result upon any of these unfortunates is a crime.

There is little doubt but that Polk county will experience the same results from its institution that Linn county has from theirs.

The asylum is located at the poor farm, five or six miles from Des Moines, where the nearest physician resides. The Cedar Rapids *Times* recently said that poor farms are practically poor houses and ought to be called by that name. It declares that the worst mistake that Linn county ever made was when it put $20,000 into a county insane asylum. It is located five miles from Marion, where the nearest physician resides, and a large number of insane people are kept in it and given poor care and attention.

Not long ago the Ft. Dodge *Messenger* agitated the question in Webster county. It recommended the building of a county asylum and explained in detail how much such a move would save the county. Other counties will also want the same thing. It is to be hoped the experiments in this line already made will be sufficient to convince the people that it is a certain step backward in the care of the insane, and its extension should not be further recommended.

The state of Iowa cannot afford to save money at the expense of this unfortunate class.

A CIRCULAR LETTER.

Dr. E. Hornibrook, president of the State Medical Society, has prepared and sent to the chairmen of the various sections the following circular letter. It is of interest to the entire profession of the state. The Doctor's points are so practical and well brought out that we reproduce it entire:

CHEROKEE, Iowa, July 20, 1897.

Gentlemen,—You have accepted the chairmanships of the several sections for the current year, and have thereby taken the responsibility of providing the scientific material for our next annual meeting.

To promote uniformity of all the sections, to increase the scientific value of the papers, and to encourage a full and free discussion, are duties which the society will expect you to fulfill. The educational influence of our meeting will depend upon your zeal and efficiency.

The doctors who attend our meetings do so for the purpose of imparting or receiving knowledge, and all should have an opportunity of doing both. Medical societies are intended for scientific work and for increasing the enthusiasm of the members in medical research. No one should undertake to occupy the time, or expect to command the attention of from three to five hundred thoughtful, studious, scientific men, unless he has something valuable to say, and has taken pains to say that something concisely and clearly. The reading of a paper should never take more than fifteen minutes.

Records of original research, reports of clinical experience, and descriptions of unusual cases make papers valuable, especially if failures as well as successes are recorded. The theories of the writer, or of the authorities, might well be omitted. Arguments are admissible, but what is already printed in periodicals and standard works is unnecessary. The society is composed of readers who are presumably familiar with medical literature.

President Senn says in his annual address before the American Medical Society: "One of the glaring faults of the medical societies of the present day as teaching institutions is the presentation of too many papers. A bulky volume of the transactions is no indication of the value of the work accomplished. The papers should be few, concise and thorough; the discussions free and general."

I would suggest that the first three sections be limited to eight papers each, and the remaining sections to four each. This will give time for free discussion. It often requires more ability, research and experience to discuss a paper properly than it does to write it. Therefore, the men selected by you to lead in the discussion of each paper should be among the ablest and most experienced in the profession. Two should be appointed to lead in the discussion of each paper, but this should not be understood as prohibiting any member from taking part in the elucidation of the subject. Writers should notify you at an early date of the scope and title of their papers, so that you may have ample time to arrange for discussion; and no paper should be read unless the title of the paper is published in the program so that those intending to discuss may have time for preparation.

It is not my intention that these suggestions should be construed as binding rules, but simply as hints. I confidently rely upon each of you to make his section of great value to the profession; and I hope through your exertions and zeal, and the coöperation of the profession, that those who attend our next meeting will be amply repaid for the sacrifice of time and money. I have the honor to be, gentlemen, your obedient servant,

EDW. HORNIBROOK.

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State Care of Insane.

Among the many heavy burdens imposed upon tax-payers is the care of the insane.

How can this class be cared for in the most economical, humane, and scientific manner, is a question well deserving the serious consideration of communities and the state. In view of the large sums annually expended for the care of this class the financial aspects of the question easily engage the attention of the tax-payer, and in the interest of economy should receive due regard. But it should not be forgotten that the humane features of the subject overshadow all other considerations and in every instance should take precedence of mere financial policies.

We have in Iowa two systems of care furnished the chronic insane,— that provided by the state in our state hospitals, and that furnished by counties at the county poor farms. It is unnecessary to discuss the relative merits of these two systems in a medical journal, as it is apparent to physicians, at least, that the care given the insane in the state hospitals is vastly superior to that which can be given them at a county poor farm, even though separate buildings are provided for that purpose.

On the one hand, they are under the able management of experienced physicians with trained attendants and enjoy the best treatment known to medical science ; they are provided with proper diversion and employment and all that tends to ameliorate their unhappy condition. On the other, their management is directed by the poor farm overseer, their personal wants being largely administered to by paupers, thus rendering their position a degree below the paupers themselves. Their medical wants are

in charge of the county doctor, who resides several miles distant and whose term of office usually expires at the end of the year. It would seem that when these two pictures are fully contemplated in all their details there would be small question as to which system of care is the best. But it is exceedingly difficult to convince county supervisors that anything more is needed for these people than to provide them with a building and the commonest wants of humanity.

In view of the fact that some of the counties of the state have recently erected asylums at their poor farms and that others are agitating the subject; that politicians are showing in round figures the great financial benefits to be derived from the system, while newspapers are sounding its praises, and from the further fact that during the past few years more than three hundred patients have been sent from the insane hospital at Independence alone to the poor houses in northern Iowa, it is clearly the duty of the profession, from simple humanitarian motives, to strongly condemn the further extension of the system.

There is one feature connected with the county care system which is serious in its far reaching results, and it appears is an ineradicable defect. That is the pernicious habit of receiving acute, and presumably recoverable cases, thus depriving them of whatever chances they may possess of a restoration to health and to society under humane and scientific treatment.

In the state of New York, where the county care system was permitted a trial of twenty years, it was shown that this habit was largely indulged notwithstanding it was in direct violation of law. What was true of New York in this respect would be true of Iowa or any other state. It was also found that the care given patients in these asylums was bad in every essential particular.

In 1890 a bill called the State Care Bill was passed in New York which provided state care for all the dependent insane, and the county asylum system was abandoned. *The American Journal of Insanity* of April, 1890, in referring to the passage of the bill said: "By signing this bill the governor has consummated one of the most signal triumphs ever achieved by humanity in the state." The possibility of the legislature of Iowa being called upon in the near future to take a decisive step in reference to the

same question seems not unlikely. It would be most unfortunate, both from a financial and a humanitarian aspect, for Iowa to experiment with a subject that has been satisfactorily demonstrated by other states. No one should entertain a desire to give these helpless people any system of care short of the best obtainable. That the care given in the state institutions is immeasurably the best, and that the best is the most economical and humane, should be made clear to the people and to tax-payers that further experimentation be discouraged. Every county asylum erected is done at the expense of that class of humanity which should enlist our sincerest sympathies and command our best efforts to secure to them, ungrudgingly, the wisest and most humane care known to our science.

[In this issue of THE JOURNAL appears a paper by a former assistant physician in the Hospital for the Insane at Independence. It contains so much that is of interest and importance that it would be of great good to the unfortunate class under consideration if it were reproduced in every county paper in the state. As the issue is now a live one and will be brought up this winter in some form, we believe that no kinder act can be done by those who read the paper than to have it spread as widely as possible among the people.]

The Medical College Question. In the July issue of THE JOURNAL we asked for an expression from the medical profession of the state on the medical college question. We give below the substance expressed in many letters received from all parts of the state.

The undivided opinion of all is that we should have fewer and better schools — that one strong school in Iowa is enough. All agree also that this should be the medical department of the University. Further, scarcely one so expressing himself is a graduate of the medical department of the University, showing that the question is one of an entirely impersonal nature. The removal of the department is advocated by THE JOURNAL because it is believed that Iowa City, a town of only 7,500 people, is altogether too small to properly support a medical department. Des Moines is fully ten times as large and should be able to furnish ten times

as much clinical material if properly used. This would not be true of surgical clinics. These patients will go to Iowa City, but not so of the medical, gynæcological, and other cases. These are largely local from their very nature. These, too, are more important than the surgical cases. Surgery is limited to the few, while the medical clinics are important to all. A united profession will support the University at Des Moines and within a very short time after its removal we believe it would have the entire state to itself. This certainly is in line with the wishes of the profession of the state. We do not say this in opposition to the other schools, but in the interest of higher and better medical education, and because we believe it to be the duty of THE JOURNAL to reflect the sentiment of the profession throughout the state. The University is necessarily the strongest school in the state. It is supported by direct taxation. We all have a financial interest in it — it is "our" school. It is able to pay its professors a reasonable salary. It is not run as an advertisement of its professors, while some of the schools are run solely for that purpose, the instructors being wholly without compensation.

FROM IOWA CITY: I do not think the other schools of the state are ready or willing to merge their strength with the University. It would necessarily strike the heads off too many men now wearing the professional toga. The agitation of the matter will do one thing, that is, test the feelings of the profession of the state.

FROM MAXWELL: I think there can be no doubt but that to have one thoroughly equipped medical school, maintained by the state, would be far better than numerous small schools whose very existence is dependent upon the number of students that can be induced to study medicine; or upon the amount of advertising that can be gotten by the faculty through the school.

Any school to be successful should be well equipped with buildings, apparatus, libraries, etc., and have a strong faculty who are free to seek after truth and to impart it to students unhampered by local or personal interests. To successfully maintain such a school requires much money. A school maintained by private enterprise is almost sure to be conducted in private interests. It is too much to expect that an enterprise involving as great an expense as is necessary in the maintenance of a successful school, shall be carried on by private funds for the public good without regard to private interests.

A school maintained by the public is naturally more apt to be conducted in the interests of the public. The people can and should demand that it be so conducted.

FROM LOGAN: In reference to the location of the State University, it matters less to me as a member of the medical profession where the school is located than how the medical schools of the country are conducted. I would rather not have a medical college in the state than to have one in every little town, the professors in which are so anxious for notoriety as to give their services free of charge. * * * I wish to say right here that with all our talk about raising the standard of medical education in the medical schools of the United States, every cross-road wants a medical college or two for the benefit of somebody. And if the standard of medical education has been raised, the standard of ethics has been lowered in the same ratio, until the code as enforced is a farce. * * * Put the State University anywhere you please, but make a school out of it that every tax-payer, whether he is a member of our profession or not, may be satisfied with and proud of it.

FROM SHELL ROCK: The position taken in the last issue of THE IOWA MEDICAL JOURNAL to dispense with all but one medical college in the state, make it a department of State University located in the central largest city of state (Des Moines) is one of the best suggestions for elevating the future of medicine in Iowa that I have seen brought before the profession.

Have often thought of this multiplication of medical colleges and wondered what it in time would bring forth. When I have witnessed the superficial qualifications of some of their graduates of late, an era of fads and aggressive surgery for future generations to look upon with scorn is no wonder.

One medical college, with an efficient corps of instructors under state and professional regulation (free dispensary and hospital system as well), would make an educational institution, and not as now an institution to advertise a few self-constituted professors.

Without taking more of your time allow me to fully endorse your ideas and hope for a revolution of our present college system.

FROM INDEPENDENCE: In your July editorial referring to fake medical schools there is a wholesome ring that deserves commendation and support. Be it one or a half dozen who, in the name of an honorable calling, adopt devices and schemes to supplant the interests of those having an equal professional position, are themselves using a position deadly to the heritage and hopes to which we are entitled.

Let the batteries of THE JOURNAL be in the future worked as efficiently as in the past against that selfishness whose presence is a humiliation and disgrace to all lovers of medicine.

FROM CARROLL: The sentiment voiced in your editorial, "Medical Department State University," meets my most hearty approval. I would go one step farther and take the position that there was no necessity for a medical school in Iowa, owing to a lack of clinical instruction. Young men go out from these state institutions illy prepared to give value received to a gullible clientele.

FROM OTTUMWA: I have not changed my views about cheap medical schools. No, and I never expect to. I am decidedly opposed to everything that will lower the standard of medical education. It must be raised. With the increasing knowledge it is necessary for students to put in more time in school than formerly. The didactic teaching must be more extended than formerly on account of the amount of bacteriological, pathological and histological work that is now required that was not when we attended lectures, and the school that is going to do good work must be able to offer the third and fourth year men abundant clinical material, presented by men who are able to give the greatest amount of instruction. Students must be required to make diagnosis repeatedly of all common diseases and especially in normal and pathological conditions of pregnancy and through repeated bedside examinations, and by all means should attend several cases of labor themselves and be permitted to see some at least of the more common malpresentations before they be allowed to graduate.

Teaching should be done by trained teachers rather than by good, energetic country doctors. We have too many little, one-horse medical colleges. We want colleges to educate our students rather than advertise the professors (?). Yours for better medical schools.

FROM ALGONA: I am pleased with the position which you take in the July number of THE JOURNAL on medical schools and medical education in Iowa. We should have one medical school in Iowa. It should be located at Des Moines. It should be the medical department of the State University. The medical profession of Iowa should unite in making it equal to the best schools in the United States.

Medical Colleges Combining.

The wave of professional opinion concerning medical colleges has swept the continent. The *Pacific Medical Journal*, published at San Francisco, says, under the heading, "Medical Colleges Combining": "Bellevue Medical College and the medical department of the University of New York City have made overtures to become merged into one college. The Medical College of Alabama, in Mobile, has united with the medical department of the University of Alabama. No doubt other medical colleges will fall in line with these beginnings, a consummation that will result in great benefit to the cause of medical education and to the medical profession. The medical department of the University of California made many overtures looking towards union to the Cooper Medical College in times gone by, but they were always promptly declined. Now the Cooper College is humbly petitioning for a kind of Morganitic marriage with the

university. The Cooper should have united before a kind of left-hand recognition by the university became so imperative."

The placing of medical education under charge of the state is surely near at hand. The profession have gotten hold of the idea; it is the correct one and is bound to win.

Removal Medical Department S. U. I.

It is fixed by the constitution of the state that the University shall be permanently located at Iowa City *without branches elsewhere.* The constitution may be amended by the passage of a bill at two successive sessions of the legislature, and then by vote of the people at a general election.

A bill providing for the removal of the medical department to Des Moines will be presented in the legislature this winter. We trust that every lover of higher medical education will speak to his members in the legislature in favor of the passage of the bill.

Medical Men and Politics.

We sometimes see it in medical journals and in letters from medical men that doctors should eschew politics, that the profession cannot afford to meddle with it. We do not believe a word of it. We believe that a physician has the same right to look after the welfare of the state as any other citizen. Be that as it may, the fact remains that the profession is in politics and that our opinion, the one way or the other, will not affect the situation.

At Cedar Rapids there were fully one hundred and fifty physicians present, about one half as delegates and the other half as workers for or against some of the candidates.

One of the latter would have stood a much better show of nomination had the physicians been absent. To a man he was opposed by the profession.

The nominee of the convention is in every way satisfactory to the medical profession of the state. Mr. Shaw believes that every professional man should be thoroughly educated and fully qualified for the position he assumes to fill.

Mr. White, the democratic nominee, takes the same position. Hence, no member of the profession need go away from home to find a man holding views corresponding to his own.

STATE NEWS.

Dr. W. S. Windle will locate at Beacon.

A $3,000 practice for sale. Address JOURNAL.

Dr. H. C. Bulis, of Decorah, is dangerously sick.

Dr. Leduc, of Templeton, will remove to Danbury.

Dr. John Ogilvie, of Lone Tree, is reported very sick.

Dr. C. E. Cook, of Rush '97, has located at New London.

Dr. W. D. Kinney has removed from Sutherland to Gravity.

Dr. G. W. Field has removed from Eagle Grove to Humboldt.

Dr. C. S. Clegg, of Cotter, will remove to Columbus Junction.

Dr. M. U. Chesire, a graduate of Rush, has located at Anamosa.

Dr. F. J. Coleman has located at Everly and is a partner of Dr. Plondka.

Dr. C. E. Schulte, of West Point, will locate in Milwaukee, Wisconsin.

Dr. John Wade, a graduate of the Sioux City Medical College, has located at Tipton.

Dr. J. F. Harp, of Prairie City, has just returned from post graduate work in Chicago.

The many friends of Dr. J. R. Guthrie, of Dubuque, sympathize with him in the loss of his little child.

Dr. L. D. Rood, of Des Moines, recently had the misfortune to suffer a fracture of his right wrist in a runaway accident.

Dr. Eli Grimes, state bacteriologist, has been delivering a series of lectures before the teachers' normals throughout the state.

Tipton doctors have been prime movers in the organization of three fraternal insurance companies, two at Tipton and one at Iowa City.

The house of Dr. H. W. Brown, of Waterloo, was burglarized in day light a few days ago. Considerable property was stolen, but all was recovered.

On July 27th the wife of Dr. S. A. Todd, of Wright, Mahaska county, was accidentally killed by the discharge of a gun, which she was attempting to hang on the wall. The entire back portion of her head was torn off. Dr. Todd is a brother of Dr. C. E. Todd, of Oskaloosa.

Dr. J. T. Robbins, of Newton, has located in Des Moines.

Dr. J. D. McVay has been appointed postmaster at Lake City.

Dr. Womeldorf has located at Hartley. He is a graduate of Rush.

Dr. J. H. Noyes, of Ogden, has just left home for a visit at Boston.

Dr. Geo. W. Hinkle, of Allerton, has been nominated as candidate for representative.

Dr. E. H. Melott, of Ogden, has just returned from a month's vacation spent in California.

On August 8th Dr. E. N. Brown, of Marengo, had the misfortune to lose his barn by fire.

Dr. R. C. Hoffman, of Oskaloosa, has just returned from a pleasant vacation at Salt Lake.

Dr. F. J. Langenhorst, of Ashton, was married on August 5th to Miss Nannie McKinley, of Grand Meadow.

Dr. R. A. Nash, of Tipton, has returned from Chicago, where he has been attending a five weeks' course at the Chicago Polyclinic.

Dr. Woods Hutchinson, formerly of Des Moines, is now located in Buffalo, New York, where he is becoming prominent in scientific circles.

Dr. J. D. Cleveland, of Exline, has brought suit against a citizen of that town for $10,000 for circulating a libelous letter concerning him.

Dr. J. L. Witt, of Logan, is taking a pleasant vacation at Hot Springs, S. D. There are few more pleasant places than Hot Springs for a summer outing.

Dr. Geo. V. Ellis, of Akron, has returned from Canton, Miss., where he thought of locating. Prejudice against people from the north Dr. Ellis found still to be a bar to professional men in the south.

The Spirit Lake Medical Association has been formed at Spirit Lake. It has a membership of thirteen. The officers are: President, E. L. Brownell; vice-president, E. E. Munger; secretary and treasurer, C. S. Shultz. The following are the members: Drs. A. E. Burdick and R. C. Mollison, of Graettinger; A. E. Rector and C. S. Shultz, Lake Park; R. J. Hamilton and R. G.

Hamilton, Ocheyedan ; E. E. Munger, Spencer ; C. B. Adams, Estherville ; C. M. Coldren and Q. C. Fuller, Milford, and J. B. Stair, C. B. Fountain and E. L. Brownell, Spirit Lake. Spirit Lake will be the permanent place of meeting. Next meeting in December.

The Bussey District Medical Society met at Tracy on July 29th. The following were present : Drs. James Dotterer, Hull, Sr., and Wm. Hull, of Attica ; D. Jackson, of Pleasantville ; C. W. Cornell, of Knoxville ; C. E. James, of Durham ; C. B. Powell and S. T. Gray, of Albia ; H. W. Miser and Dr. Nye, of Lovilla ; E. E. White, of Marysville ; Dr. Barnes, of Oskaloosa, and L. E. Park, of Tracy.

The program was : "Paper on Naso-Pharyngeal Catarrh," by Dr. Powell ; "Entero-Colitis," by Dr. Park ; "Typhoid Fever," by Dr. Dotterer.

Officers elected were : President, Dr. James Dotterer ; treasurer and secretary, Dr. L. E. Park.

Dinner was served at the residence of Dr. Park and was presided over by Mesdames Miser, Powell, Gray and James.

This society makes a specialty of having a good time socially as well as intellectually.

At the August meeting of the Polk County Medical Society the session was devoted largely to a discussion of the skiagraph from a medico-legal standpoint. Judge Geo. H. Carr, of Des Moines, read a learned paper on the subject from a legal standpoint. We are pleased to be able to present the paper of Judge Carr to our readers in this issue of THE JOURNAL. Dr. E. E. Dorr presented a short paper on Abdominal Hysterectomy — report of case.

After the program the society repaired to the banquet room and passed a very pleasant evening in a social manner.

It was practically decided to form a medico-legal society, comprising members of the bar and of the medical profession of Polk county. The Polk County Medical Society, under Dr. Patchin as president, is doing the best work in its history. New quarters have been secured and a banquet is held every three months.

The Southwestern Iowa Medical Society met at Osceola Thursday, August 19, 1897. The following was the program : Prayer,

Rev. W. E. Howe, Osceola ; address of welcome, Hon. M. L. Temple, Osceola ; response, F. E. Sampson, Creston ; Dr. D. C. Brockman, Ottumwa, "Injuries to the Kidneys" ; Dr. E. W. Doolittle, Garden Grove, "Habitues" ; Dr. W. R. Whitnall, Hastings, "Puerperal Fever" ; Dr. B. R. McAllister, Leon, "Empiricism" ; Dr. Ewing Brown, Omaha, Neb., "Extra-Uterine Pregnancy" ; Dr. V. L. Treynor, Council Bluffs, "Therapeutics of Cold Water" ; Dr. E. E. Dorr, Des Moines, "Alexander Operation" ; Dr. S. T. Gray, Albia, "Hysteria in Pregnancy" ; Dr. F. S. Thomas, Council Bluffs, "Professional Degeneracy" ; Dr. Arnold Jolly, Hamburg, "A Plea for Ethical Medicine" ; Dr. B. N. Torrey, Creston, "Fractures" ; Dr. W. F. Carver, Murray, "Some Thoughts Upon the Therapeutics of the More Common Diseases of the Infantile Period" ; Dr. T. C. Cole, Thurman, "Duodenitis" ; Dr. C. B. Powell, Albia, "Hemorrhoids" ; Dr. W. F. Statler, Essex, "Neurasthenia" ; Dr. A. W. Sherman, Lamoni, "Emphysema" ; Hon. A. W. Parks, Osceola, "Medical Jurisprudence" ; Dr. J. W. Cokenower, Des Moines, "Osteoclasis — A Case" ; Dr. Enos Mitchell, Weldon, "The Passing of the Baccilli" ; Dr. D. W. Finlayson, Des Moines, a paper.

The Southwestern Iowa Medical Society is accomplishing great good among the fraternity of the entire southwestern portion of the state. Its membership includes many of the best men in Iowa.

That the IOWA MEDICAL JOURNAL is finding a hearty support from the profession of the state is best shown by its roll of new subscribers. During the past month the following new names of Iowa physicians have been added to our list : R. G. Adkinson, Scranton ; J. M. Brooks, Newell ; O. H. Barthel, Pocahontas ; James Bisgard, Harlan ; E. L. Brownell, Spirit Lake ; Will Bowen, Whittemore ; C. P. Bowen, Centerville ; W. E. Bradley, Estherville ; F. W. Cram, Davenport ; F. A. Christenson, Lake Mills ; M. E. Colet, Algona ; C. P. Coulson, Chelsea ; Wm. H. Davis, San Bernardino, Calif.; J. W. Dixon, Burlington ; H. P. Engle, H. D. Gray, M. R. Hammer, Newton ; J. W. Eppler, Waterville, Minn.; J. C. Edgar, Holstein ; C. R. Fisk, Keokuk ; A. S. Gockley, Carroll ; W. S. Greenleaf,

Massena; J. H. Griffin, Carpenter; B. T. Gadd, Mitchellville; J. W. Green, Lacey; J. G. Geers, West Point; F. A. Gustafson, Chicago, Ill.; U. L. Hunt, Numa; J. H. Hanson, Lamoni; W. A. Hall, McGregor; W. G. Hillis, Union Mills; O. M. Ide, Sabula; W. R. Koob, Brayton; F. H. Kisor, Windham; L. H. Jones, D. W. Wheelwright, Wall Lake; D. D. Gray, Pulaski; Johnson & Pfannabecker, Sigourney; G. W. Loar, Monroe, J. M. Lovett, Pleasanton; E. L. Martindale, Clinton; J. McDonald, Armstrong; Pauline Meyers, Marshalltown; S. G. Nordstrum, Sioux Rapids; H. E. Nelson, Dayton; C. H. Osincup, Walker; Ott & Butterbaugh, Riverside; Evaline Peo, Boone; G. H. Porter, Strawberry Point; L. G. Patty, Fonda; J. A. Pinkerton, Traer; A. J. Rogers, Hillsboro; H. Rose, Ft. Dodge; J. F. Ritter, Worthington; E. Rice, Roland; F. L. Stanley, Nodaway; J. S. Spangler, Ute; J. R. Thompson, Jolly; F. L. Tribon, Algona; J. J. Wilder, Kingsley; B. R. Walker, Grand River; H. C. Woods, Maynard.

THE DIRECTORY OF IOWA PHYSICIANS FOR 1898.

The January number of THE JOURNAL will be the directory number. We wish to make this directory the most complete and accurate ever issued for the state. We would like to have every physician fill out and return to us the following data:

Name..... *Location*.....

School of Practice..... *Date of Graduation*.....

School from which Graduated.....

(Please write distinctly to avoid mistakes.).

We wish also to send sheets from former directory to two or three physicians in each county for correction and revision to date. We will be pleased to send such sheets to any one who may ask for them.

The directory will be free to all subscribers of THE JOURNAL. Kindly give us all the assistance you can, that we may have each county correct.

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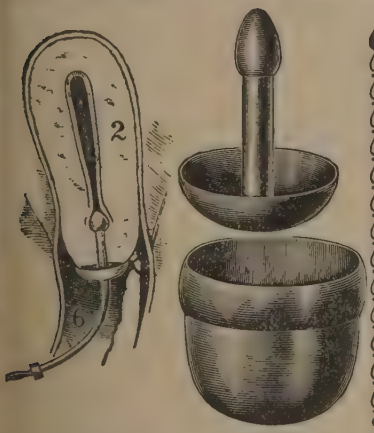

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The physicians of Plymouth county held a preliminary meeting August 13th at Le Mars, for the organizntion of the Plymouth County Medical Society. A committee consisting of Drs. Mary Breen, J. C. McMahan and P. L. Brick, was appointed to draft constitution and by-laws for the organization.

The Medical Society of the Missouri Valley will hold its annual meeting at Council Bluffs, Thursday, September 16, 1897. Programs will be sent to members September 1. The meetings of this society are among the best held in the state.

Recent pension examiners are: A. B. Bowen, president, Maquoketa; A. M. Avery, secretary; C. M. Lucky, treasurer, Jackson county; W. B. Evans. Wm. Iseminger, Crawford county, and E. T. Wilcox, Decorah.

Full reports from all the medical schools of the state give the following as the enrollment of medical students during the year past:

State University	214
Keokuk Medical College	184
College Physicians & Surgeons, Keokuk	171
Des Moines	89
Sioux City	39

Several cases of human anthrax are reported from Sioux City.

The annual meeting of the Iowa Association of Railway Surgeons will be held at Des Moines on October 13th and 14th, 1897.

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CARL BARCK, A. M., M. D., Professor of Ophthalmology and Otology.
J. R. LEMEN, M. D., Professor of Practical Diagnosis and Therapeutics.
HUGO SUMMA, A. M., M. D., Professor of General Pathology and Pathological Anatomy.
R. C. ATKINSON, M. D., Professor of Diseases of Children.
O. E. TREUTLER, Ph. G., M. D., Professor of Materia Medica and Toxicology.
B. M. HYPES, A. M., M. D., Professor of Obstetrics.
A. H. MEISENBACH, M. D., Professor of Special and Clinical Surgery and Surgical Pathology.
HANAU W. LOEB, A. M., M. D., Professor of Diseases of the Nose and Throat.
A. C. BERNAYS, A. M., M. D., Professor of Anatomy and Clinical Surgery.
H. C. DALTON, M. D., Professor of Abdominal and Clinical Surgery.
CHARLES GILBERT CHADDOCK, M. D., Professor of Diseases of the Nervous System.
T. C. WITHERSPOON, M. D., Professor of Genito-Urinary Surgery and Physiology.
LOUIS CRUSIUS, M. D., Professor of Histology.
GEORGE TANSEY, B. L., Professor of Medical Jurisprudence.
GEORGE CLINTON CRANDALL, B. S., M. D., Professor of Principles and Practice of Medicine and Clinical Medicine.
H. H. BORN, M. D., Professor of Osteology.
H. H. STARK, Ph. G., M. D., Professor of Chemistry, Director of the Chemical Laboratories.

The regular session begins September 23, 1897.

FEES.

Matriculation fee, $5; entire lecture fee, $50; final examination fee, $25; dissecting ticket, $10; sons and brothers of physicians and sons of the clergy, $25; hospital and clinic tickets free.

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YOU WILL FIND
That Rheumatisms and Neuralgias, accompanying or following malarial attacks, will not yield to antipyretics alone, but must be treated just as if they had arisen independently. In such conditions the most successful results are obtained from the administration of
Tongaline Liquid,
Tongaline Tablets,
Tongaline & Lithia Tablets,
Tongaline & Quinine Tablets,
Tongaline
MELLIER
ANTI-RHEUMATIC
ANTI-NEURALGIC.

"An Infant Food Approaches Perfection in the Degree in Which it Resembles Human Milk."

PEPTOGENIC MILK POWDER renders cows' milk almost identical with human milk in chemical composition and digestibility. The "Perfection" of an infant food — no starch, no cane sugar, no dextrins, no maltose.

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